Sheet 1 of 7 Attorney Docket No.: FORS-06930 Serial No.: 10/074,328 U.S. Department of FORM PTO-1449 Commerce Patent and Trademark Office Applicant: Mary Ann D. BROW et al. (Modified)
INFORMATION DISCLOSURE STATEMENT BY APPLICANT
(Use Several Sheets IKNecessary)
RADE (Modified) Filing Date: 02/12/02 Group Art Unit: 1634 **U.S. PATENT DOCUMENTS** kaminer Initials Cite Serial / Patent Applicant / Patentee Class Subclass Filing Date Number Issue Date 6 12/02/96 07/18/2000 Prudent et al. 435 6,090,606 12/02/96 6 6,090,543 07/18/2000 Prudent et al. 07/12/96 6,001,567 435 6 12/14/99 Brow et al. 11/30/99 03/24/97 Hall et al. 435 6 ,994,069 4 11/26/96 5,983,557 11/16/99 Prudent et al. 435 6 5 08/19/97 451 06/29/99 Madabhushi et al. 204 6 5,916,426 02/19/97 7 5,888,780 03/30/99 Dahlberg et al. 435 91.53 5,882,867 Ullman et qu 435 07/07/95 33/16/99 6 8 435 252 05/30/95 9 02/23/29 Harrington et al. 5,874,283 01/24/97 12/08/98 Byow et al. 435 6 10 5,846,717 11/29/96 12/01/98 435 6 11 5,843,669 Kaiser et al. 07/07/95 5,843,654 12/01/98 Heisler et al. 435 6 12 DUPITCATES 435 6 06/06/95 11/17/98 Dahlberg et al. 13 5,837,450 07/11/95 11/03/98 435 14 5,830,664 Rosemeyer et al. 6 06/17/97 15 5,807,682 09/15/98 Grossman et al. 435 6 5,795,763 08/18/98 Dahlberg et al 435 194 06/06/95 16 08/02/96 08/11/92 Western et al. 435 6 17 5,792,614 07/21/98 Seibl et al. 435 6 11/22/95 18 5,783,392 67/07/98 05/06/96 24.3 19 5,777,096 Grossman et al. 536 20 5,719,028 02/17/98 Dahlberg et al. 6 02/06/97 536 11/21/95 12/30/97 24.3 5,703,222 Grossman et al. 21 09/16/96 435 6 22 5,698,400 12/16/97 Cotton et al. 06/06/96 23 5,691/142 11/25/97 Dahlberg et al. 435 5,660,988 08/26/97 Duck et al. 435 06/07/95 24 06/06/94 25 5,614,402 03/25/97 Dahlberg et al. 435 199 09/16/92 5,601,976 02/11/97 435 6 26 Yamane et al. 2/22/94 5, 545,729 08/13/96 Goodchild et al. 536 24.5 07/30/96 536 23.7 06/04/93 5,541,311 Dahiberg et al. 08/4/93 05/07/96 435 6 29 5,514,543 Grossman et al. 02/27/96 91.52 11/22/94 30 5,494,810 Barany et al. 435 31 5,487,972 01/30/96 435/6 435/91.2 01/05/93 Geland et al. Examiner: Date Considered: **EXAMINER:**

Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Date Considered:

Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with

DUPLICATI

Examiner:

EXAMINER:

next communication to applicant.

		./	\0\!\ \c_{\infty}	·	•	5.000.7017			
	FORM PTO-14 Commerce	149	JUL 0 8 2005 JU	U.S. Department of	Attorney Docket No.: FORS-06930	Serial No.: 10/074,328			
	(Modified)	P	JUL U LEE	Patent and Trademark Office	nark Office Applicant: Mary Ann D. BROW et al.				
	INFORMATION (Use Several Sh	ON DISC neets If Ne	LOSURE STATEMEN	T BY APPLICANT					
	(37 CFR § 1.98	(b))	(Banerabir		Filing Date: 02/12/02	Group Art Unit: 1634			
[OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)								
		87	Copley and Boot, "Exc (1992)	onuclease Cycling Assay: An Amplified A	ssay for the Detection of Specific DNA Seq	uences BioTechniques 13:888-891			
Ī	-	88	Cuthbert, "Hepatitis C:Progress and Problems," Clin. Microbiol. Rev. 7:505-532 (1994)						
	-	N 9	DeMott et al., "Human RAD2 Homolog 1 5'-3'-Exo/Endonuclease Can Efficiently Excise a Displaced DNA Fragment Containing a 5'-Terminal Abasic Lesion by Endonuclease Activity," J. Biol. Chem. 271:30068-30076 (1996)						
		90	Doty et al., "Strand Separation and Specific Recombination in Deoxyribonucleic Acids: Physical Chemical Studies," Proc. Natl. Acad. Sci. USA 46:461-476 (1960)						
7		91	Duck et al., "Probe Amplifier System Based on Chimeric Cycling Oligonucleotides," BioTech., 9:142-147 (1990)						
T	•	92	Dunn et al., "Complete Nucleotide Sequence of Bacteriophage T7 DNA and the Locations of T7 Genetic Elements," J. Mol. Biol. 166:477-535 (1983)						
V)		93	Engelke, "Purification of Thermus Aquaticus DNA Polymerase Expressed in Echerichia coli," Anal. Biochem 191:396-400 (1990)						
V		94							
!		95	Eom et al., "Structure of Tag polymerase with DNA at the polymerase active site," Nature 382:278-282 (1996) Erlich et al., "Recent Advances in the Polymerase Chain Reaction," Science 252:1643-1651 (1991)						
2		96	Fahy et al., "Self-sustained Sequence Replication (3SR): An Isomermal Transcription-based Amplification System Alternative to PCR," PCR Meth. Appl., 1:25-33 (1991)						
11		97	Garforth et al., "Structure-specific DNA binding by bacter ophage T5 5'-3' exonuclease," Nucleic Acids Res. 25:3801-3807 (1997)						
7			Gelfand, PCR Technology - Principles and Applications for DNA Amplification (H.A. Erlich, Ed.), Stockton Press, New York, p. 19 (1989)						
6		98 -							
\gtrsim		99	Guatelli et al., "Isothermal, in vitro amplification of nucleic acids by a multienzyme reaction modeled after retroviral replication," Proc. Natl. Acad. Sci., 87:1874-1878 (1990) with an erratum at Proc. Natl. Acad. Sci., 87:7797 (1990)						
\sim	_	100	Harrington et al., "DNA Structural Elements Required for NEN-1 Binding," J. Biol. Chem. 270:4503-4508 (1995)						
		101	Harrington et al., "The characterization of a mammalian DNA structure-specific endonuclease," EMBO Journ. 13:1235-1246 (1994)						
	-	102	Harrington and Lieber, "Functional domains within FEN-1 and RAD2 define a family of structure-specific endonucleases: implications for nucleotide excision repair," Genes and Develop. 8:1344-1355 (1994)						
7		103	Hayashi, "PCR-SSCP: A simple and Sensitive Method for Detection of Mutations in the Genomic DNA," PCR Meth. Appl., 1:34-38, (1991)						
71		104	Higuchi, R., In Ehrlich, H.A. (Ed.), PCR Technology: Principles and Applications for DNA Amplification, Stockton Press, New York, pp. 61-70 (1991)						
1		105	Hiraro et al. "Most compact hairpin-turn structure exerted by a short DNA fragment, d(GCGAAGC) in solution: an extraordinarily stable structure resistant to nycleases and heat," Nuc. Acids Res. 22:576-582 (1994)						
*		106	Holland et al., "Detection of specific polymerase chain reaction product by utilizing the 5'-3' exoluclease activity of Thermus aquaticus DNA polymerase," Proc. Natl. Acad. Sci. USA 88:7276-7280 (1991)						
		107	Hosfield et al., "Structure of the DNA Repair and Replication Endonuclease and Exonuclease FEN-1: Coupling DNA and PCNA Binding to FEN-Activity," Cell 95:135-146 (1996)						
		108	Hosfield et al., "Newly Discovered Archaebacterial Flap Endonucleases Show a Structure-Specific Mechanism for DNA Substrate Binding and Catalysis Resembling Human Flap Endonuclease-1," J. Biol. Chem. 273:27154-17161						
		109	Huang et al., "Role of Calf RTH-1 Nuclease in Removal of 5'-Ribonucleotides during Okazaki Frament Processing," Biochemistry 35:9266-9277 (1996)						
	-	110	Hwang et al., "The cr	ystal structure of flap endonuclease-1 from	Methanococcus jannaschii," Nature Structu	ral Biology 5:707-713 (1998); I			
		111	Inchauspe et al., "Use of Conserved Sequences from Hepatitis C Virus for the Detection of Viral RNA in Infected Sera by Polymerase Chain Reaction," Hepatology 14:595-600 (1991)						
		112	Ito et al., "Compilation	n and alignment of DNA polymerase seque	ences," Nucl. Acids Res. 19:4045-4057 (199)			
	Examiner: Ochanne Sitty Date Considered: 10/20/05								
	EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.								

Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with

EXAMINER:

next communication to applicant.

		OIPE	•	•	Sheet 6 of 7					
FORM PTO-14	149	HII 0 9 2005 &	U.S. Department of	Attorney Docket No.: FORS-06930	Serial No.: 10/074,328					
Commerce (Modified)	PA	JUL 0 8 2005 (3)	Patent and Trademark Office	Applicant: Mary Ann D. BROW & al.						
INFORMATI	ON DISC	OSURE STATEMEN	T BY APPLICANT							
		DECERTIFIE		Filing Date: 02/12/02	Group Art Unit: 1634					
(37 CFR § 1.98(b)) OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)										
	139	Murante et al., "Calf 5' to 3' Exo/Endonuclease Must Slide from a 5' End of the Substrate to Perform Structure-specific Cleavage," J. Biol. Chem. 270:30377-30383 (1995)								
	140	Murante et al., "The Calf 5'- to 3'-Exonuclease Is Also an Endonuclease with Both Activities Dependent on Primers Annealed Upstream of Point of Cleavage," J. Biol. Chem. 269:1191-1196 (1994)								
<u> </u>	141	Murray et al., "Structural and Functional Conversation of the Human Homolog of the Schizosaccharomyces pombe rad2 gene, Which is Required for Chromosome Segregation and Recovery from DNA Damage," Molecular and Cellular Biology 14:4878-4888 (1994)								
	142	Myers et al., "Reverse Transcription and DNA amplification by a Thermus thermophilus DNA Polymerase," Biochem. 30:7661-7666 (1991)								
	143	Nielsen PE et al., "Peptide nucleic acids (PNAs): Potential anti-sense and anti-gene agents," Anticancer Drug Des. 8:53-63 (1993)								
•	144	Nolan et al., "Kinetic Analysis of Human Flap Endonuclease-i by Flow Cytometry," Biochemistry 35:11668-11677 (1996)								
	145	Nugent et al., "Characterization of the Apurinic Endonuclease Activity of Drosophila Rrpl," Biochemistry 32:11445-11452 (1993)								
	146	Perler et al., "Interven	ing sequences in an Archaea DNA polymer	rase gene," Proc. Natl. Acad. Sci. USA 89:55	77-5581 (1992);					
	147	Pontius and Berg, "Rapid renaturation of complementary DNA strands mediated by cationic detergents: A role for high-probability binding								
•	ents," J. of Bacteriology 180:5406-									
	148 5412; Reagan et al., "Characterization of a Mutant Strain of Saccharomyces cerevisiae with a Deletion of the RAD27 Gene, a Structural Homolog RAD2 Nucleotide Excision Repair Gene," J. of Sacteriology 177:364-371 (1995);									
	150 Roychoudhury and Wu, "Novel Properties of Escherichia coli Exonuclease III," J. Biol. Chem. 252.4786-4789 (1997)									
	151									
	152									
	153									
	154 Siegal et al., "A 5' to 3' exonuclease functionally interacts with calf DNA polymerase ε," Proc. Natl. Acad. Sci. USA 89:9377-9381 (1992)									
	155									
, ,	156 Shen et al., "Essential Amino Acids for Substrate Binding and Catalysis of Human Nap Endonuclease 1," J. of Biol. Chem. 271:917									
	Smith et al., Novel Method of Detecting Single Base Substitutions in RNA Molecules by Differential Melting Behavior in Solution," Get 3:217-223 (1988);									
	Sommers et al., "Conditional Lethality of Null Mutations in RTHI That Encodes the Yeast Counterpart of a Mammalian 5'- to 3'-Exc 158 Required for Lagging Strand DNA Synthesis in Reconstituted Systems," J. of Biol. Chem. 270:4193-4196 (1995);									
	Stark, "Multicopy expression vectors carrying the <i>lac</i> repressor gene for regulated high-level expression of genes in <i>Escherichia coli</i> ," <i>Gene</i> 5: 159 267 (1987);									
	Studier and Moffatt, "Use of Bacteriophage T7 RNA Polymerase to Direct Selective High-level Expression of Cloned Genes," J. Mol. Biol. 189:113-130 (1986);									
	161 Tindall and Kunkel, "Fidelity of DNA by the Thermus aquaticus DNA Polymerase," Biochem. 27:6008-6013 (1988).									
	Turchi et al., "Enzymatic completion of mammalian lagging-strand DNa replication," Proc. Natl. Acad. Sci. USA 91:3803-9807 (1994)									
	163 Uhlenbeck, "A small catalytic oligoribonucleotide," <i>Nature</i> 328:596-600 (1987);									
	Urdea et al., "A novel method for the rapid detection of specific nucleotide sequences in crude biological samples without blotting or radioactivit application to the analysis if hepatitis B virus in human serum," Gene 61:253-264 (1987);									
	165			nts by temperature-gradient gel electrophores	is," Nucl. Acids Res., 18:2699-2701					
.Examiner:		acha	une Sitt	Date Considered:	20/05					
EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.										

Examiner:

EXAMINERGY:

179

<u>/80</u> 181

182

Daplications

eranne o

Sigman et al., "Chemical Nucleases," Chem. Rev. 93:2295 (1993)

Date Considered:

Livak et al., "Oligonucleotides With Fluorescent Dyes at Opposite Ends Provide a Quenched Probe System, Useful for Detecting PCR Product and Nucleic Acid Hybridization," PCR Methods and Appln. 4:357-362 (199)

Abramson et al., "Characterization of the 5'-3' Exonuclease Activity of Thermus Aquaticus DNA Polymerase," FASEB J. 5(4) 386(1991)

10/20/05

Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Lee et al., "Allelic discrimination by nick-translation PCR with fluorogenic probes," Nucleic Acids Res. 2(16):3761-3766 (1993)